

**FINAL**

Office of River Protection  
Consent Decree 08-5085-FVS

Monthly Summary Report

February 2015

**Office of River Protection****Consent Decree 08-5085-FVS  
Monthly Summary Report****February 2015 (Monthly Summary Report/Project Earned Value Management System  
reflects December 2014 information)**

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## CD Milestone Statistics/Status

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2014</b>				
D-00B-01	Complete Retrieval of Tank Waste from 10 SSTs in WMA-C	09/30/2014		Past Due
D-00B-02	Advise Ecology of the Nine SSTs Waste Will be Retrieved by 2022	09/30/2014	08/24/2011	Completed
<b>Fiscal Year 2015</b>				
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014		Past Due
D-00A-19	Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2014		Past Due

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology.

LAW = low-activity waste.

PT = pretreatment.

SST = single-shell tank.

WMA-C = C Farm waste management area.

### Consent Decree Reports/Reviews

**D-00C-01 series, Submit to State of Washington and State of Oregon Semi-Annual Report,** Due: Semiannually – January 31 and July 31 of each year, Status: Ongoing. The January 2015 Semiannual Report was issued on January 29, 2015, via U.S. Department of Energy (DOE), Office of River Protection Letter 15-ECD-0006.

**D-00C-02 series, Submit to State of Washington and State of Oregon Monthly Summary Reports,** Due: End of each month, Status: Ongoing.

**D-006-00-A, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree,** Held: December 10, 2013, Status: Completed.

**D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled,** Sent: November 8, 2013, Status: Completed.

## Single-Shell Tank Retrieval Program

Milestone	Title	Due Date	Status
D-00B-01	Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C	September 30, 2014	Past Due
D-00B-01A through D-00B-01J	Submit Tank Retrieval Complete Certification	One year following each retrieved tank retrieval completion report <sup>a</sup>	Ongoing
D-00B-02	Advise Ecology of the Nine SSTs from which Waste Will Be Retrieved by 2022	September 30, 2014	Completed
D-00B-03	Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02	December 31, 2017	Ongoing
D-00B-04	Complete Retrieval of Tank Wastes from the nine SSTs in D-00B-02	September 30, 2022	Ongoing
D-00B-04A through D-00B-04I	Submit Tank Retrieval Complete Certification	TBD	TBD

- a. Pursuant to Section IV-B-5 of the Consent Decree, the U.S. Department of Energy (DOE) must submit to the Washington State Department of Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the Consent Decree.  
 Completed for Single-Shell Tank (SST) C-104 on March 21, 2013, via DOE Office of River Protection (ORP) letter 13-TF-0018. Completed for SST C-108 on May 1, 2013, via ORP letter 13-TF-0025. Completed for SST C-109 on June 4, 2013, via ORP letter 13-TF-0037. Completed for SST C-110 on January 29, 2014, via ORP letter 14-TF-0007. Completed for SST C-107 on September 30, 2014, via ORP letter 14-TF-0114. Completed for SST C-112 on September 30, 2014, via ORP letter 14-TF-0115.

TBD = to be determined.

WMA-C = C Farm waste management area.

### Significant Past Accomplishments:

- C-102 retrieval operations were secured on January 25, 2015, initiated activities at C-102 to measure riser 2 and install a new Enhanced Reach Sluicer System
- Continued field activities for the replacement of the plugged slurry distributor at AN-106
- Expired Hose in Hose Transfer Line replacement between POR209 and POR104 transfer structures is ongoing
- Continued fabrication of new replacement sluicers for C-111
- Initiated Operability Acceptance Testing of C-111 slurry pump system.

### Significant Planned Activities in the Next 6 Months:

- Complete retrieval of C-102 using modified sluicing
- Finish a C-105 Systems Engineering Evaluation of the current retrieval method; will potentially need a revised tank waste retrieval work plan
- Continue retrieval of C-105 using Mobile Arm Retrieval System – Vacuum
- Begin startup of hard heel retrieval in C-111 using high-pressure water, with caustic/water dissolution available.

**Issues:**

\* DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

**Tank Waste Retrieval Work Plan Status**

<b>Tank</b>	<b>TWRWP</b>	<b>Expected Revisions</b>	<b>First Retrieval Technology</b>	<b>Second Technology</b>	<b>Third Technology</b>
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	In Process	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Complete	MARS-V	MARS-V-High Pressure Water Spray	-
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S-High Pressure Water Spray	Water Dissolution
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = Extended Reach Sluicing System.  
MARS = Mobile Arm Retrieval System.  
S = sluicing.  
TWRWP = Tank Waste Retrieval Work Plan.  
V = vacuum.

**Significant Accomplishments:**

None.

**Significant Planned Activities in the Next 6 Months:**

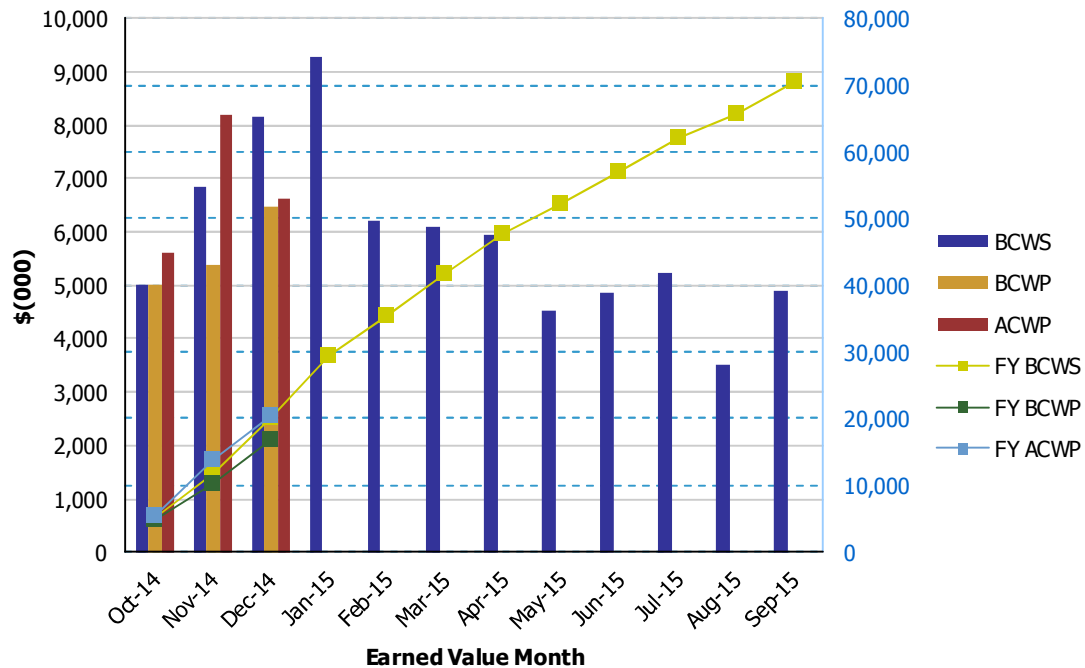
None.

**Issues:**

None.

**Tank Farms ORP-0014**  
**Retrieve and Close SST's 5.02**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2014	\$5,024	\$5,011	\$5,609	1.00	0.89	\$5,024	\$5,011	\$5,609	1.00	0.89
Nov 2014	\$6,852	\$5,392	\$8,174	0.79	0.66	\$11,876	\$10,403	\$13,783	0.88	0.75
Dec 2014	\$8,171	\$6,453	\$6,612	0.79	0.98	\$20,047	\$16,856	\$20,395	0.84	0.83
Jan 2015	\$9,289					\$29,336				
Feb 2015	\$6,205					\$35,541				
Mar 2015	\$6,095					\$41,636				
Apr 2015	\$5,926					\$47,562				
May 2015	\$4,509					\$52,070				
Jun 2015	\$4,852					\$56,922				
Jul 2015	\$5,238					\$62,161				
Aug 2015	\$3,527					\$65,687				
Sep 2015	\$4,886					\$70,573				
CTD	\$525,546	\$512,274	\$529,738	0.97	0.97					

***Retrieval and Close Single-Shell Tanks***

The current month unfavorable cost variance of (\$1,718k) is due to:

- Additional training of operations staff was required due to a thermocouple technical safety requirement violation for Single-Shell Tank C-102
- Additional resources required to determine a path forward for continuing retrieval of the Mobile Arm Vacuum System at Single-Shell Tank C-105 (DOE Office of River Protection [ORP] has provided the systems engineering evaluation to ECY on February 5, 2015)
- Additional resources required for winterization activities at C Farm for preventive maintenance
- Hiring of additional industrial hygiene and health physics technicians training due to vapor concerns in the farms.

The current month unfavorable schedule variance of (\$159k) is due to:

- Delays at removing the slurry distributor at AN-106 due to concerns of the waste trapped in the pump. Mockups have been performed to ensure grouting would be successful.

## Waste Treatment and Immobilization Plant Project

Number	Title	Due Date	Status
D-00A-06	Complete Methods Validations	12/31/2017	Ongoing*
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2019	Ongoing*
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2022	Ongoing*

WTP = Waste Treatment and Immobilization Plant.

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,696 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 601 craft, 410 nonmanual, and 172 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

In October 2012, the Pretreatment (PT) and High-Level Waste (HLW) Facilities 2-Year Interim Work Plan was incorporated into the project over-target baseline, and the percent-complete values for PT and HLW Facilities were frozen at the September 2012 rate. The ORP has approved the fiscal year (FY) 2015 and FY 2016 2-Year Interim Work Plan, and authorized BNI to resume production engineering activities necessary to finalize the design of the HLW Facility. The WTP Project continues to focus on resolving PT Facility technical issues, performing hazard analyses, and completing safety evaluations for process systems. The HLW safety design strategy has been approved by ORP and limited construction is ongoing.

The WTP Project continues to focus on completion of the Low-Activity Waste (LAW) Facility, analytical laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL). As of December 2014, LBL facilities were 64 percent complete, design and engineering was 78 percent complete, procurement was 74 percent complete, construction was 80 percent complete, and startup and commissioning was 12 percent complete.

In December 2014, the cumulative to-date WTP Project schedule variance was a positive \$5.76 million, and the cumulative to-date WTP Project cost variance was a positive \$11.0 million. The major contribution to the cumulative to-date cost and schedule variance is based on the progress of the LBL replan and PT/HLW 2-Year Interim Work Plan.

The following is the project status through the end of December 2014.

### Significant Past Accomplishments:

- Completed RLD-8T Phase 1 testing and Phase 2 platform modifications (PT)
- Completed the HLW melter feed systems hazard analysis (HLW)
- Completed Mississippi State University Phase 1, Iteration 1 HEPA (high-efficiency particulate air) filter testing for filters from both Porvair and Kurion (HLW)
- Completed final wall Plenum Kaolite placements in Melter #1 (LAW)
- Completed the upper level Kaolite placements in the discharge chambers for Melter #2
- Installed plenum shelves in Melter #2 (LAW)
- Insulated 174 linear feet of pipe insulation at the nonradioactive liquid waste facility (BOF).



**Significant Planned Actions in the Next 6 Months:**

- Complete modification at Full-Scale Vessel Testing (FSVT) Facility to support Phase 2 testing for the pulse jet mixer (PJM) controls (PT)
- DOE approval of PT Facility Resumption Plan to support DOE authorization to proceed with production engineering (PT)
- Complete the LAW Facility design and operability review (LAW)
- Complete construction of the analytical laboratory (LAB)
- Initiate component level testing of select LAB systems (LAB)
- Install nonradioactive liquid waste disposal system motor control panel (BOF)

**Issues:**

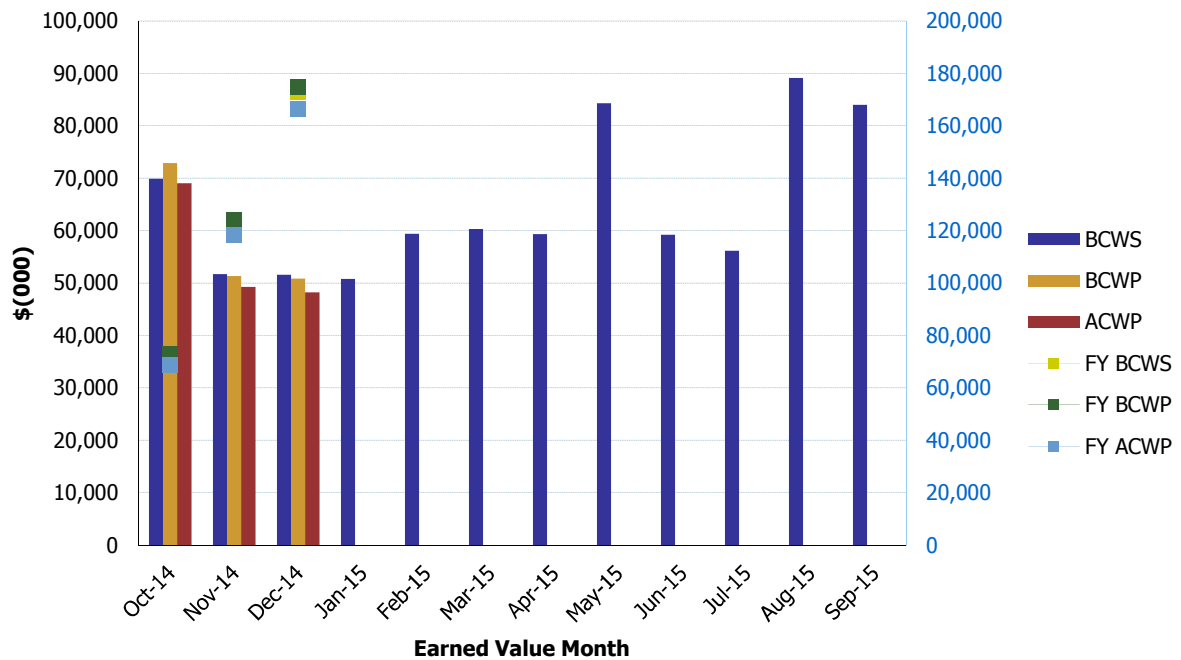
\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

Data Set: FY 2015 Earned Value Data

Data as of: December 2014

**River Protection Project  
Waste Treatment Plant (WTP) Project**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2014	\$69,893	\$72,879	\$69,039	1.04	1.06	\$69,893	\$72,879	\$69,039	1.04	1.06
Nov 2014	\$51,713	\$51,323	\$49,300	0.99	1.04	\$121,606	\$124,202	\$118,339	1.02	1.05
Dec 2014	\$51,573	\$50,885	\$48,245	0.99	1.05	\$173,179	\$175,087	\$166,584	1.01	1.05
Jan 2015	\$50,828									
Feb 2015	\$59,412									
Mar 2015	\$60,303									
Apr 2015	\$59,356									
May 2015	\$84,311									
Jun 2015	\$59,231									
Jul 2015	\$56,164									
Aug 2015	\$89,139									
Sep 2015	\$84,025									

PTD	\$8,544,659	\$8,550,426	\$8,539,368	1.00	1.00
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## Pretreatment Facility

Number	Title	Due Date	Status
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	Past Due
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	Ongoing*
D-00A-14	PT Facility Construction Substantially Complete	12/31/2017	Ongoing*
D-00A-15	Start PT Facility Cold Commissioning	12/31/2018	Ongoing*
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2019	Ongoing*

PT = pretreatment.

The PT Facility will separate radioactive tank waste into HLW and LAW fractions, and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56 percent complete overall, with engineering design 85 percent complete, procurement 56 percent complete, construction 43 percent complete, and startup and commissioning 3 percent complete. Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent-complete status since September 2012. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the PT/HLW 2-Year Interim Work Plan. In addition, actions continue to reprioritize near term scope due to reprogramming efforts for FY 2015; pending resolution of impacts and path is currently being defined and will include a revised work plan by the end of second quarter.

BNI has submitted resolution plans for eight technical issues: T1, Hydrogen in Vessels; T2, Criticality; T3, Hydrogen in Piping and Ancillary Vessels (HPAV); T4, Mixing; T5, Erosion Corrosion; T6, PT Facility Optimization; T7, Vessel Analysis; and T8, Ventilation. Phase 1 of the FSVT is continuing for the PJM controls utilizing the RLD-8T vessel. Technical review teams continue to evaluate open PT Facility technical issues. An evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility.

### Significant Past Accomplishments:

- Completed RLD-8T Phase 1 testing and Phase 2 platform modifications
- Resolved comments for PJM Control Strategy Plan, Rev. 1
- Continued conceptual design for a standardized high-solids vessel
- Issued 24590-PTF-RPT-NS-14-001, *Pretreatment Facility* – Proposed solutions to recognized issues
- BNI submitted Pretreatment Resumption Plan to ORP for approval.

### Significant Planned Actions in the Next 6 Months:

- Commission Phase 2 Test Spec/Plan and Platform modifications

- ORP approval of the Pretreatment Resumption Plan to support the authorization to proceed with production engineering
- Continue to complete PT Facility Phase 1 PJM controls testing
- Provide PT Facility conceptual design for PT Facility high solids systems
- Finalize test plan, simulant composition, and test instrument list for full-scale vessel mixing tests
- Implement PT Facility systems engineering approach
- Issue draft volume 1 conceptual design recommendation business case
- Start informational testing in 8-ft test vessel for down selection of features pertaining to standardized high-solids vessel design
- Complete preliminary analysis of Standard High Solids Vessels Design
- Issue corrosion simulant basis document for localized corrosion.

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

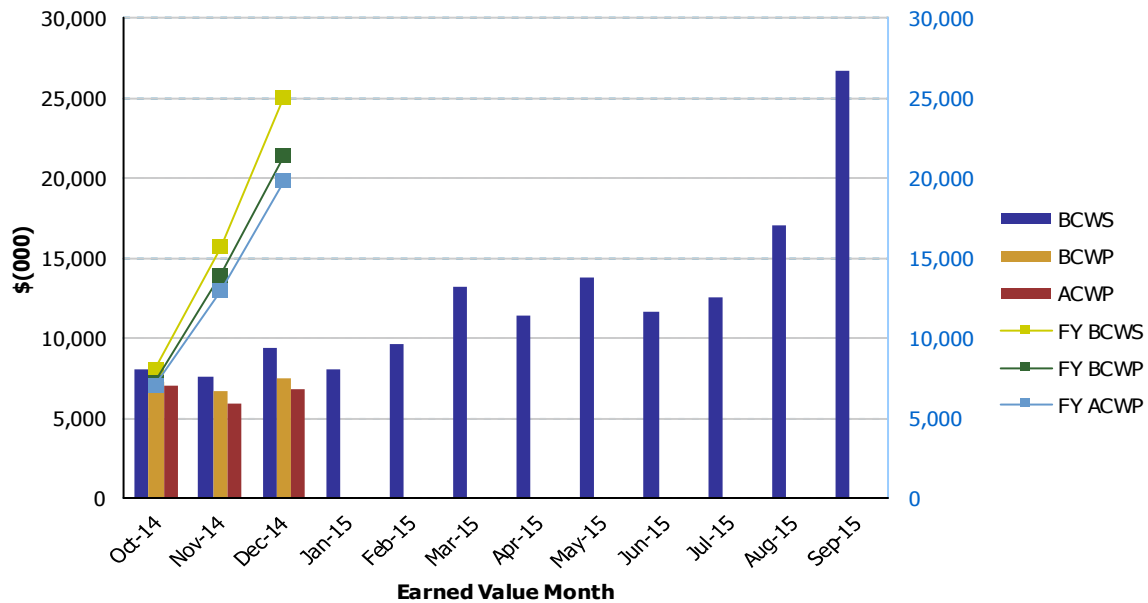
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: December 2014

<b>River Protection Project</b> <b>Pretreatment Facility (WBS 1.01)</b>
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EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2014	\$8,100	\$7,285	\$7,050	0.90	1.03	\$8,100	\$7,285	\$7,050	0.90	1.03
Nov 2014	\$7,582	\$6,657	\$5,917	0.88	1.13	\$15,682	\$13,942	\$12,967	0.89	1.08
Dec 2014	\$9,361	\$7,472	\$6,841	0.80	1.09	\$25,043	\$21,414	\$19,808	0.86	1.08
Jan 2015	\$8,051									
Feb 2015	\$9,649									
Mar 2015	\$13,219									
Apr 2015	\$11,483									
May 2015	\$13,738									
Jun 2015	\$11,633									
Jul 2015	\$12,497									
Aug 2015	\$17,059									
Sep 2015	\$26,656									
PTD	\$1,631,714	\$1,628,033	\$1,626,435	1.00	1.00					

Mon - SV	Mon - CV
(\$1,889)	\$631
(\$3,681)	\$1,598

FY - SV	FY - CV
(\$3,629)	\$1,606

## High-Level Waste Facility

Number	Title	Due Date	Status
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	Complete
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016	Ongoing*
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	Ongoing*
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	Ongoing*

HLW = high-level waste.

The HLW Facility will receive the separated HLW concentrate from the PT Facility. This concentrate will be blended with glass formers, converted into molten glass in one of the two HLW melters, and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated before shipment to interim storage.

As of September 2012, the HLW Facility was 62 percent complete overall, with engineering design 89 percent complete, procurement 81 percent complete, construction 43 percent complete, and startup and commissioning 4 percent complete. Construction, procurement, and production engineering activities have been significantly slowed down, resulting in minimal change to the percent completion status since September.

Construction is continuing concrete placements and installation of support steel and crane rails in the canister handling cave.

Testing of HEPA filters at Mississippi State University is continuing to select the filters that would meet the design and operations requirements. Initial testing (iteration 1) showed that it has been challenging for some of the filters to meet the efficiency requirements. DOE and BNI are evaluating the results to determine the path forward.

Gap analysis for the gap between the Systems Design Descriptions (SDS) and the Preliminary Documented Safety Analysis has been completed.

Significant efforts are being made in the development of the SDS for key systems in accordance with the Systems Engineering Management Plan.

BNI is focused on radioactive liquid waste disposal (RLD) system redesign to issue the purchase order for detailed design by vendor. Additionally, hazards analysis, engineering studies to develop path forwards for resolution of issues regarding an HVAC (heating, ventilation, and air-conditioning) system, melter, and other solid waste handling system are ongoing.

**Significant Past Accomplishments:**

- Incorporated HLW SDS-Preliminary Documented Safety Analysis Gap analysis actions in FY 2015/2016 internal forecast
- Completed the HLW melter feed systems hazard analysis
- Installed 9 tons of structural steel and continued installation of crane rails and supports in the canister handling cave
- Issued updated SDS implementing procedure
- Completed Mississippi State University Phase 1, Iteration 1 HEPA filter testing for filters from both Porvair and Kurion.

**Significant Planned Actions in the Next 6 Months:**

- Continue activities to support the RLD system redesign
- Release wall one slab and three walls etc. +58 ft
- Issue request for proposal for fireproofing for HLW Annex structural steel
- Issue request for proposal for vendor design of RLD-8 vessel
- Continue review of 22 HLW suspended purchase orders
- Issue HLW Facility Design Description
- Perform audit for NQA-1 qualification of Mississippi State University test facility.

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to the WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

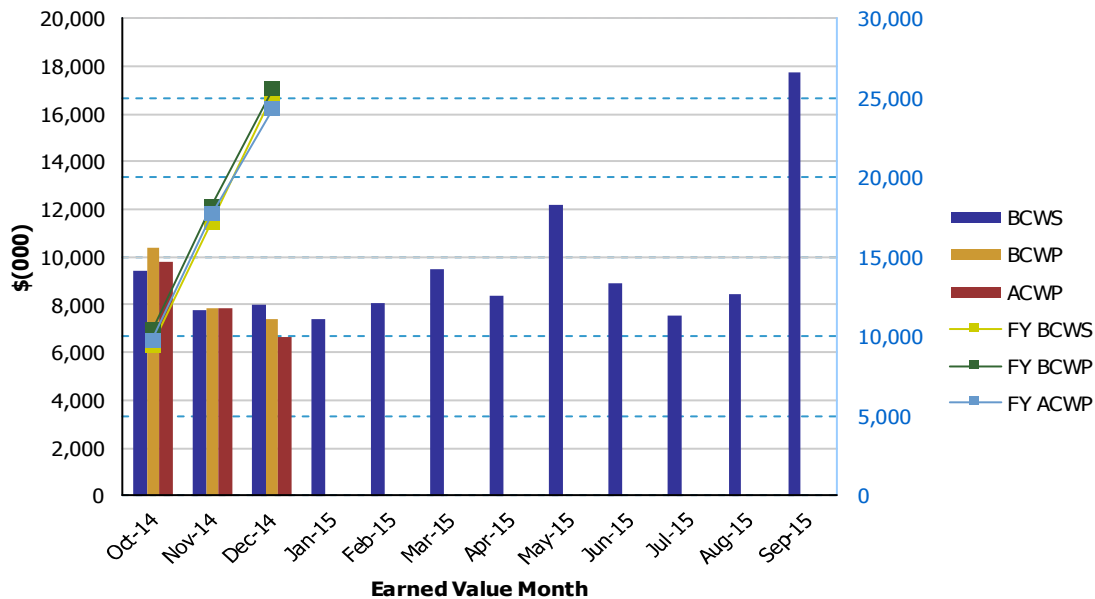
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: December 2014

<b>River Protection Project</b> <b>High-Level Waste Facility (WBS 1.03)</b>
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EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2014	\$9,449	\$10,367	\$9,783	1.10	1.06	\$9,449	\$10,367	\$9,783	1.10	1.06
Nov 2014	\$7,743	\$7,833	\$7,880	1.01	0.99	\$17,192	\$18,200	\$17,663	1.06	1.03
Dec 2014	\$7,973	\$7,359	\$6,631	0.92	1.11	\$25,165	\$25,559	\$24,294	1.02	1.05
Jan 2015	\$7,357									
Feb 2015	\$8,093									
Mar 2015	\$9,495									
Apr 2015	\$8,339									
May 2015	\$12,214									
Jun 2015	\$8,890									
Jul 2015	\$7,537									
Aug 2015	\$8,442									
Sep 2015	\$17,700									
PTD	\$1,079,278	\$1,079,930	\$1,078,355	1.00	1.00					

Mon - SV	Mon - CV
(\$614)	\$728
\$652	\$1,575

FY - SV	FY - CV
\$394	\$1,265



## Low-Activity Waste Facility

Number	Title	Due Date	Status
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	Past Due
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	Ongoing*
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	Ongoing*

LAW = low-activity waste.

The LAW Facility will process the LAW that will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of December 2014, the LAW Facility was 67 percent complete overall, with engineering design 79 percent complete, procurement 77 percent complete, construction 76 percent complete, and startup and commissioning 8 percent complete.

### Significant Past Accomplishments:

- Completed final wall Plenum Kaolite placements in Melter #1
- Completed the upper level Kaolite placements in the discharge chambers for Melter #2
- Installed plenum shelves in Melter #2
- Installed over 170 linear feet of process piping and hydro-tested 450 linear feet of piping
- Installed over 660 linear feet of conduit and pulled approximately 12,230 linear feet of cable.

### Significant Planned Actions in the Next 6 Months:

- Complete subcontractor work scope in the annex
- Award the purchase order for the active gas analyzers
- Complete the LAW Facility design and operability review
- Complete castable refractory installation in the melters
- Receive caustic scrubber
- Complete repair Wet Electrostatic Precipitator Vessel
- Assemble and install Wet Electrostatic Precipitator internals.

### Issues:

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

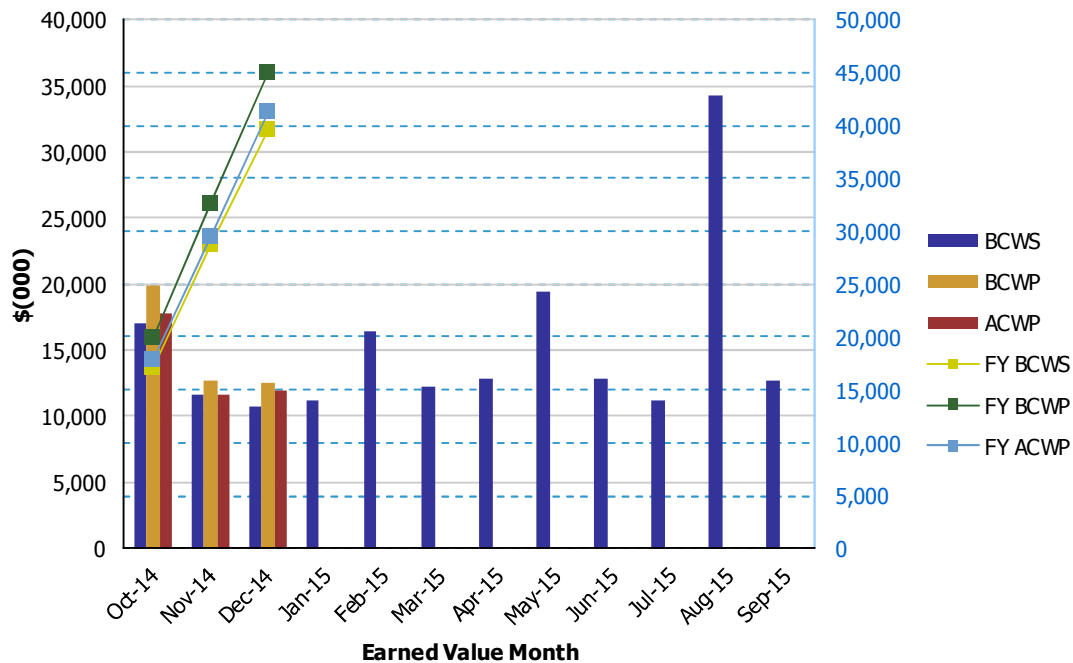
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: December 2014

<b>River Protection Project</b> <b>Low-Activity Waste Facility (WBS 1.02)</b>
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EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2014	\$16,994	\$19,896	\$17,781	1.17	1.12	\$16,994	\$19,896	\$17,781	1.17	1.12
Nov 2014	\$11,700	\$12,666	\$11,597	1.08	1.09	\$28,694	\$32,562	\$29,378	1.13	1.11
Dec 2014	\$10,760	\$12,499	\$11,927	1.16	1.05	\$39,454	\$45,061	\$41,305	1.14	1.09
Jan 2015	\$11,225									
Feb 2015	\$16,433									
Mar 2015	\$12,312									
Apr 2015	\$12,818									
May 2015	\$19,369									
Jun 2015	\$12,814									
Jul 2015	\$11,166									
Aug 2015	\$34,271									
Sep 2015	\$12,646									

PTD	\$1,013,649	\$1,022,062	\$1,019,473	1.01	1.00
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## Balance of Facilities

Number	Title	Due Date	Status
D-00A-12	Steam Plant Construction Complete	12/31/2012	Complete

The BOF will provide services and utilities to support operation of the main production facilities: PT, HLW, LAW, and LAB. As of December 2014, BOF was 57 percent complete overall, with engineering design 76 percent complete, procurement 67 percent complete, construction 82 percent complete, and startup and commissioning 13 percent complete.

BNI has initiated design activities to incorporate a permanent capability to directly feed LAW. Commercial grade dedication activities in support of the emergency turbine generator procurement are the primary focus for the quality and procurement organizations. Construction efforts are focused on the Standby Diesel Generator Facility, WTP switchgear (87), BOF switchgear (91), and nonradioactive liquid drain (54) facilities.

### Significant Past Accomplishments:

- Insulated 174 linear feet of pipe insulation at the nonradioactive liquid waste facility
- Completed 600 linear feet of conduit and pulled 435 linear feet of cable
- Completed 1,510 square feet of coatings for the steam plant piping.

### Significant Planned Actions in the Next 6 Months:

- Complete heat trace insulation in the Cooling Tower Facility
- Complete heat trace insulation in the water treatment building
- Receive and install nonradioactive liquid waste disposal system motor control panel
- Complete component testing of the low-voltage, medium-voltage, and fire detection systems for switchgear Buildings 87 and 91

### Issues:

No major issues at this time.

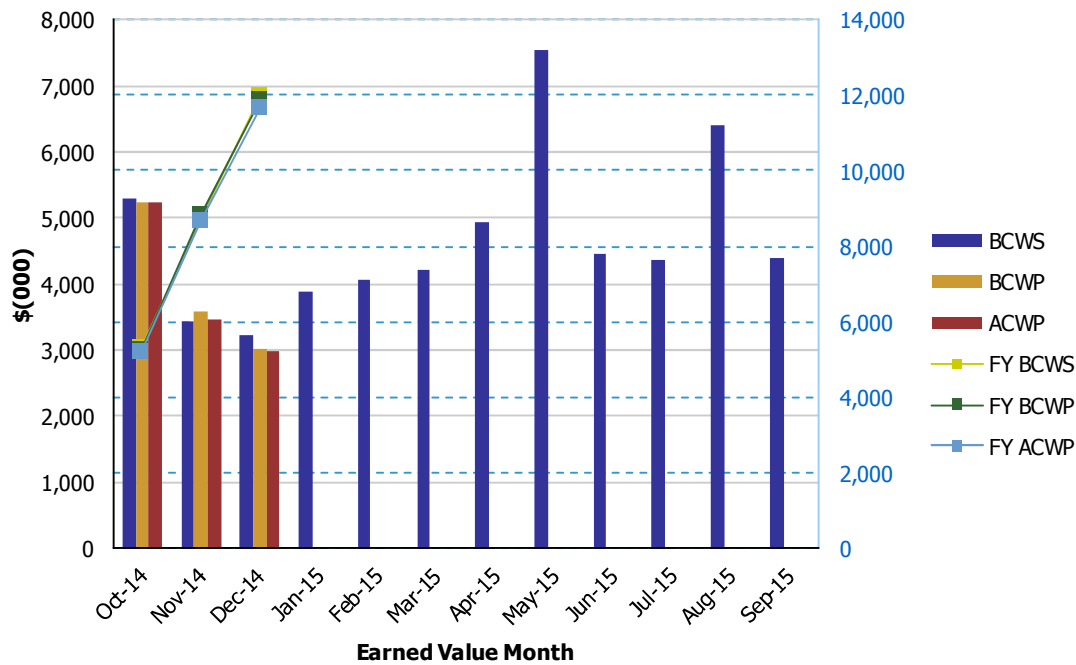
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: December 2014

<b>River Protection Project</b> <b>Balance of Facilities (WBS 1.05)</b>
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EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2014	\$5,300	\$5,238	\$5,223	0.99	1.00	\$5,300	\$5,238	\$5,223	0.99	1.00
Nov 2014	\$3,429	\$3,578	\$3,454	1.04	1.04	\$8,729	\$8,816	\$8,677	1.01	1.02
Dec 2014	\$3,240	\$3,023	\$2,976	0.93	1.02	\$11,969	\$11,839	\$11,653	0.99	1.02
Jan 2015	\$3,891									
Feb 2015	\$4,067									
Mar 2015	\$4,226									
Apr 2015	\$4,945									
May 2015	\$7,550									
Jun 2015	\$4,467									
Jul 2015	\$4,359									
Aug 2015	\$6,413									
Sep 2015	\$4,405									

PTD	\$358,636	\$358,938	\$358,783	1.00	1.00
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## Analytical Laboratory

Number	Title	Due Date	Status
D-00A-05	LAB Construction Substantially Complete	12/31/2012	Complete

LAB = Analytical Laboratory.

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of December 2014, the LAB was 74 percent complete overall, with engineering design 81 percent complete, procurement 87 percent complete, construction 93 percent complete, and startup and commissioning 20 percent complete.

Engineering efforts are focused on closure of nonconformance reports and construction deficiency reports. In addition engineering is supporting completion of construction punchlist items. Construction efforts are focused on installation of remaining electrical commodities and penetration seals to support the completion of LAB construction to support direct feed LAW.

### Significant Past Accomplishments:

- Continued cable pulls and terminations (4,020 linear feet in December – 87 percent complete)
- Continued installation of conduit (220 linear feet in December – 99 percent complete)
- Subcontractors continued system walkdowns and punchlist work off.

### Significant Planned Actions in the Next 6 Months:

- Complete electrical commodity installation
- Complete heat trace insulation
- Complete fire detection
- Initiate component level testing of select LAB systems.

### Issues:

No major issues at this time.

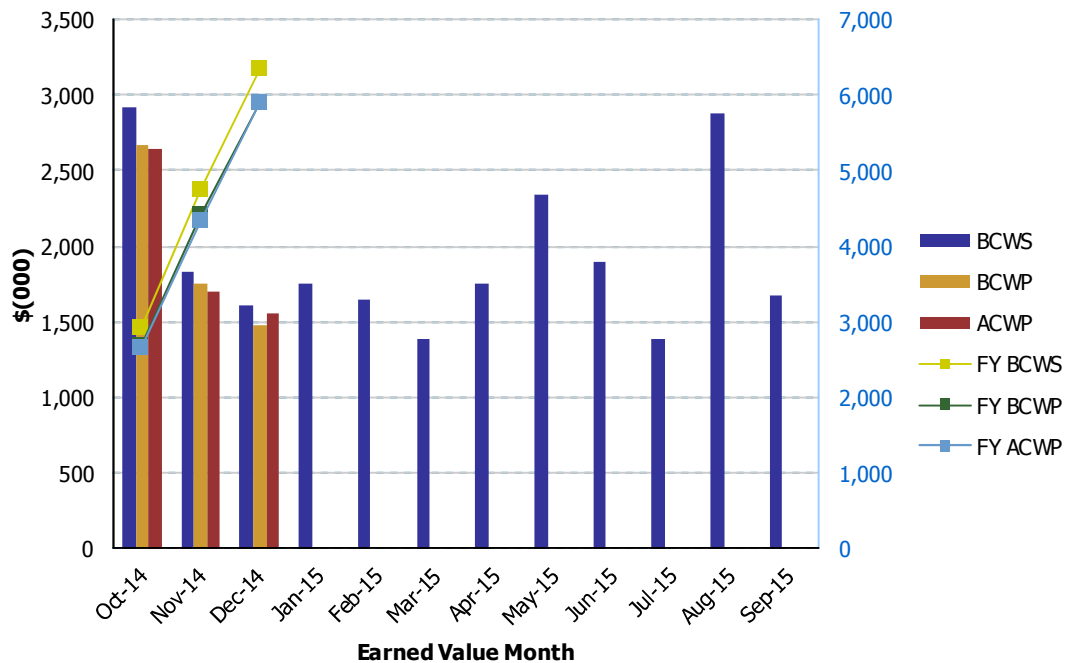
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: December 2014

<b>River Protection Project</b> <b>Analytical Laboratory (WBS 1.06)</b>
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EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2014	\$2,920	\$2,670	\$2,645	0.91	1.01	\$2,920	\$2,670	\$2,645	0.91	1.01
Nov 2014	\$1,827	\$1,748	\$1,695	0.96	1.03	\$4,747	\$4,418	\$4,340	0.93	1.02
Dec 2014	\$1,614	\$1,482	\$1,552	0.92	0.95	\$6,361	\$5,900	\$5,892	0.93	1.00
Jan 2015	\$1,757									
Feb 2015	\$1,647									
Mar 2015	\$1,392									
Apr 2015	\$1,758									
May 2015	\$2,341									
Jun 2015	\$1,902									
Jul 2015	\$1,388									
Aug 2015	\$2,879									
Sep 2015	\$1,676									

PTD	\$288,876	\$288,830	\$289,020	1.00	1.00
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**Waste Treatment Plant Project - (LBL/Project Services) Percent Complete Status  
Through December 2014**

(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars			Project Management & Shared Services Unallocated Dollars		
Facilities	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Low-Activity Waste	1,514.9	1,022.1	67%	412.4	325.7	79%	315.3	242.1	77%	571.0	434.1	76%	212.3	16.2	8%	4.0	4.0	100%
Balance of Facilities	626.8	358.9	57%	122.8	93.0	76%	77.9	52.0	67%	228.8	188.1	82%	196.8	25.4	13%	0.5	0.5	100%
Analytical Lab	389.3	288.8	74%	89.7	72.5	81%	63.3	55.1	87%	156.4	145.0	93%	79.4	15.7	20%	0.4	0.4	100%
Direct Feed LAW	9.5	0.9	9%	7.9	0.7	9%	0.46	0.05	10%	0.0	0.0	2%	0.0	0.0	0%	1.1	0.13	11%
LBL Facility Services	92.3	11.7	13%	0.0	0.0	0%	20.3	2.6	13%	0.0	0.0	0%	31.3	3.5	11%	40.8	5.60	14%
<b>Total LBL</b>	<b>2,632.8</b>	<b>1,682.4</b>	<b>64%</b>	<b>632.9</b>	<b>491.9</b>	<b>78%</b>	<b>477.2</b>	<b>351.8</b>	<b>74%</b>	<b>956.1</b>	<b>767.2</b>	<b>80%</b>	<b>519.8</b>	<b>60.9</b>	<b>12%</b>	<b>46.8</b>	<b>10.6</b>	<b>23%</b>
Project Services	405.7	60.8	15%	48.9	6.3	13%	38.0	5.0	13%	124.1	21.4	17%	3.0	1.0	35%	191.8	27.1	14%
<b>Total Project Services</b>	<b>405.7</b>	<b>60.8</b>	<b>15%</b>	<b>48.9</b>	<b>6.3</b>	<b>13%</b>	<b>38.0</b>	<b>5.0</b>	<b>13%</b>	<b>124.1</b>	<b>21.4</b>	<b>17%</b>	<b>3.0</b>	<b>1.0</b>	<b>35%</b>	<b>191.8</b>	<b>27.1</b>	<b>14%</b>
<b>Total LBL &amp; Project Services</b>	<b>3,038.5</b>	<b>1,743.3</b>	<b>57%</b>	<b>681.7</b>	<b>498.2</b>	<b>73%</b>	<b>515.1</b>	<b>356.8</b>	<b>69%</b>	<b>1,080.2</b>	<b>788.6</b>	<b>73%</b>	<b>522.8</b>	<b>62.0</b>	<b>12%</b>	<b>238.6</b>	<b>37.7</b>	<b>16%</b>
<b>PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)</b>																		
High-Level Waste	1,478.6	922.1	62%	364.4	325.2	89%	433.9	349.4	81%	561.1	243.2	43%	119.2	4.4	4%	n/a	n/a	n/a
Pretreatment	2,517.3	1,410.5	56%	761.7	645.8	85%	679.9	380.4	56%	890.0	378.6	43%	185.8	5.6	3%	n/a	n/a	n/a
Shared Services	4,726.9	3,632.6	77%	1,047.0	977.9	93%	451.7	395.0	87%	1,436.5	1,143.0	80%	453.5	133.2	29%	1,338.1	983.5	73%
<b>Total HLW/PT/SS</b>	<b>8,722.8</b>	<b>5,965.2</b>	<b>68%</b>	<b>2,173.1</b>	<b>1,948.9</b>	<b>90%</b>	<b>1,565.5</b>	<b>1,124.8</b>	<b>72%</b>	<b>2,887.6</b>	<b>1,764.8</b>	<b>61%</b>	<b>758.5</b>	<b>143.2</b>	<b>19%</b>	<b>1,338.1</b>	<b>983.5</b>	<b>73%</b>
Undistributed Budget	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total WTP</b>	<b>11,761.3</b>	<b>7,708.5</b>	<b>66%</b>	<b>2,854.8</b>	<b>2,447.1</b>	<b>86%</b>	<b>2,080.6</b>	<b>1,481.6</b>	<b>71%</b>	<b>3,967.8</b>	<b>2,553.4</b>	<b>64%</b>	<b>1,281.3</b>	<b>205.2</b>	<b>16%</b>	<b>1,576.7</b>	<b>1,021.2</b>	<b>65%</b>

Source: Preliminary WTP Contract Performance Report - Format 1, Data for December 2014

Note: In September 2012, the LBL Replan was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is \$2,014M. The percent complete values for the Total WTP are the current total LBL BCWP added to the frozen HLW/PT/SS BCWP values. In March 2014, Project Controls and Project Management work scope was moved out of Shared Services control accounts into the facilities with new control accounts being set up in the facilities. These will now be seen under Project Management/Shared Services by facility. The Shared Services PMB value has not been changed to reflect this change due to the freeze on HLW/PT and SS and the budgets remaining in UB. October 2014 data reflects the incorporation of Direct Feed LAW and the split of Shared Services into LBL Facility Services and Project Services.